



**U.S. Department Of Energy
Technical Qualification Program**

Conduct of Assessments Topical Area

Study Guide

for the

***Nuclear Explosives Safety
Qualification Standard***

April 1997

Conduct of Assessments for Nuclear Explosives Safety

Competency 4.6 **Nuclear safety personnel shall demonstrate the ability to conduct appraisals to verify effective implementation of the Nuclear Explosives and Weapons Surety (NEWS) Program in accordance with the following Department of Energy (DOE) directives:**

- **DOE Order 5610.10 Nuclear Explosive and Weapons Surety Program (sic)**
- **DOE-STD-BBB-95, Nuclear Explosives Surety Program Appraisals (when issued)**

1. Supporting Knowledge and/or Skills

- a. Explain the purpose of appraisals.
- b. Perform a review of documents relating to nuclear explosive surety and verify compliance with Nuclear Explosive and Weapon Surety Program requirements.

2. Self-Study Activities (corresponding to the intent of the above competency)

- NOTES: · The DOE Orders are in a state of transition. Please refer to the following world wide web site for a cross reference of new and old Orders: www.explorer.doe.gov
- Below are three web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	http://cted.inel.gov/cted	Clearinghouse for Training, Education, and Development
Department of Energy	http://www.explorer.doe.gov/	DOE Standards, Guides, and Orders
U.S. House of Representatives	http://law.house.gov/cfr.htm	Searchable Code of Federal Regulations

Conduct of Assessments for Nuclear Explosives Safety

Competency 4.6 addresses Nuclear Explosives Safety personnel's working level of knowledge of the Department of Energy's (DOE) Nuclear Explosive and Weapons Surety Program. To support the review and understanding of the competency, Supporting Knowledge and Skills and self-study information have been developed. The self-study information specifically addresses those areas needed for understanding the competency. The following documents are used in support of the self-study information:

- DOE Order 5610.10, Nuclear Explosive and Weapons Safety Program
- DOE Order 5610.11, Nuclear Explosive Safety
- DOE-STD-BBB-95, Nuclear Explosives Surety Program Appraisals (when issued)
- DOE-HDBK-3012-96, Guide to Good Practices for Operational Readiness Reviews (ORR) Team Leaders Guide
- DOE-EM-STD-5055-96, Operations Assessments sections 1-5

Through the understanding of Competency 4.6, Nuclear Explosive Safety personnel will become familiar with the Department of Energy Nuclear Explosive and Weapons Surety Program.

READ DOE Order 5610.10 Nuclear Explosive and Weapons Safety Program.

EXERCISE 4.6-A State the purpose of DOE Order 5610.10 Nuclear Explosive and Weapons Safety Program.

EXERCISE 4.6-B List the two (2) objectives of DOE Order 5610.10 Nuclear Explosive and Weapons Safety Program.

EXERCISE 4.6-C Describe the process used to resolve safety issues associated with Nuclear Explosive and Weapons Safety Program (DOE 5610.10).

READ chapter XI, DOE Order 5610.11, Nuclear Explosive Safety

EXERCISE 4.6- D What are the two levels that annual appraisals are conducted at?

EXERCISE 4.6-E What activities are on the agenda for the In-briefing?

Conduct of Assessments for Nuclear Explosives Safety

EXERCISE 4.6-F What information should be discussed at the Out-Briefing and be included in the Draft Report?

EXERCISE 4.6-G List six (6) of the factors to be considered and applied as appropriate for use in the Nuclear Explosives Safety Program appraisals.

EXERCISE 4.6-H State the guidance associated with the time limits applicable to the appraisal report.

Condition	Time Constraints
Appraised organization to provide comments concerning factuality and accuracy of the draft report	
Appraising organization shall transmit the final report to the Manager of the appraised organization	
Appraised organization shall transmit in writing to the appraising organization a report of corrective actions implemented and corrective action plan and schedule	

READ chapters 1-6 of Performance Based Assessments.

EXERCISE 4.6-I State the three (3) types of assessments.

EXERCISE 4.6-J Which type of assessment provides the highest amount of objectivity? Why?

Conduct of Assessments for Nuclear Explosives Safety

EXERCISE 4.6-K In addition to monitoring work performance and identifying abnormal performance and potential problems, what three other responsibilities does a person performing independent assessments have?

EXERCISE 4.6-L Describe the "Performance based" assessment approach.

3. Summary

Nuclear Explosives Safety Program Policy

The Nuclear Explosive and Weapons Safety Program Protection of the public health and safety is of paramount importance in the planning and conduct of the DOE's nuclear weapons program. The primary goal shall be to assure safety while effectively conducting the program in the national security interest. Nuclear explosive and weapon safety issues shall be resolved through a systematic process whereby:

- a. The concept of operation is totally considered.
- b. Attendant risks are identified, analyzed, evaluated, and documented.
- c. Informed decisions are made at the appropriate management level to ensure that the degree of safety provided is adequate and consistent with overall program objectives.
- d. To this end, the DOE shall maintain a formal, comprehensive, and systematic nuclear explosive and weapons safety program.

Nuclear Explosives Safety Program Objectives

The main objectives of the Nuclear Explosives Safety Program are described below:

- a. Assure that all nuclear explosive and nuclear weapon operations by DOE and DOE contractors are conducted safely.
- b. Discharge DOE's dual-agency role for the safety of nuclear weapons in DOD custody.

Conduct of Assessments for Nuclear Explosives Safety

Assessments

There are three recognized types of assessment: a. Internal, b. Self, and c. External (also known as Independent).

- a. Internal assessments are those performed by persons within the group or organization. Internal assessments do not offer the same objectivity as independent assessments.
- b. Self Assessment is the evaluation of an individual, group, or organization by that entity itself. Self Assessments are done on a routine, periodic basis.
- c. External (Independent) assessments are those conducted by someone other than the individual, group, or organization. An example of an independent assessment would be an assessment conducted by a regulatory agency. The advantage of an independent assessment is that the assessor is not associated with the actual process or activity.

Responsibilities

The responsibilities of personnel performing independent assessments are to monitor work performance, identify abnormal performance and potential problems, identify opportunities for improvement, report results to a level of management having the authority to effect corrective action, and verify satisfactory resolution to problems.

Approaches

There are three approaches to the types of assessments listed above: a. Compliance, b. Compliance plus Effectiveness, and c. Performance Based.

- a. Compliance approach is the evaluation of items, processes, or activities against predetermined requirements.
- b. Compliance plus Effectiveness is an analysis focusing on the product, process, and system to determine if suitable requirements were imposed and implemented, resulting in a product which meets client expectations. This type of approach is better than the previous in that the terms "suitable requirements" and "which meets client expectations" are more restrictive and definitive.

Conduct of Assessments for Nuclear Explosives Safety

- c. Performance Based assessments are merely a logical extension of the compliance plus effectiveness concept. Performance Based assessments provide additional focus toward client expectation, better practices, and process refinement. Performance Based relates to the outcome/result of an activity or process through direct observation and evaluation against defined requirements.

Elements of an Assessment

There are nine essential elements of conducting an assessment.

- a. Determining the Scope involves defining the boundaries for an evaluation. The following are factors to be considered when determining the assessment boundaries:
- QA Systems- Refer to the criteria of DOE Order 5700.6C, 10 CFR 830.120, or the QA Manual of the facility being assessed.
 - Organizational Entities- Management personnel that have the responsibilities within the evaluation topic.
 - Locations- Physical area where assessment items exist.
 - Programs and Activities- Types of programmatic and work processes.
 - Hierarchy of Procedures- The level of procedures that are used to determine performance during the assessment.
 - Calendar Time- The time allotted for an assessment. Time can affect the population to be assessed. Compliance and performance based assessments use some prior time up to the present.
- b. Preparing the plan includes: scheduling the organization to be assessed, dates of the assessment, team member identification, purpose and scope of the assessment, arrangement for the entrance meeting, necessary escorts, and exit meeting.
- c. Conducting the entrance meeting involves the Team Leader introducing the participants, describing planned assessments, identifying points of contact, arranging for periodic briefings of the organizations being assessed, soliciting and answering questions, and arranging for the exit meeting.

Conduct of Assessments for Nuclear Explosives Safety

- d. The interview process is a free exchange of information. It is during this time that a positive, cooperative climate is established. The types of questioning include: open, closed, probing, and leading/loading. Open questions are used to obtain general information, closed questions are used to obtain specific information, probing questions are used to obtain clarifying or additional information. Leading and loaded questions are to be avoided.
- e. Evaluation techniques are essential because they provide the means to determine acceptability. The techniques include: 1) Traceback, 2) Tracethrough, 3) Comparison, and 4) Reinspect/Retest.
 - 1) The Traceback method involves selecting samples from end results, tracing backwards through the activities that produced the results, evaluating each step of the activity, and continuing such an evaluation to the upper tier requirement.
 - 2) The Tracethrough method begins with the evaluation starting with the commitment of the upper tier requirement, tracing through the control model/standard, and evaluating each step until arriving at an end result.
 - 3) The Comparison method compares "from a requirement" to "the object of that requirement". It determines acceptability in terms of compliance with the requirement. Comparison always compares from the requirement to the object of the requirement. Because comparison determines acceptability, it is highly useful.
 - 4) The Reinspect/Retest technique requires the evaluation team to reinspect/retest the product, compare results with those obtained by the initial inspection/test, and explore the differences that are beyond expected repeatability.
- f. Deficiency identification describes the deficiency. A deficiency is a variance from a requirement. Deficiencies may be symptomatic, systematic, or inadvertent. Deficiencies that affect product quality, health, equipment reliability, and commitments to governmental agencies should be promptly reported to the contractor or DOE management.

Conduct of Assessments for Nuclear Explosives Safety

- g. Conducting the exit interview is important because it verbally summarizes the assessment. The exit meeting should identify participants, discuss assessment results, deficiencies, items of concern, questions from the assessed organization, and subsequent schedule of events.
- h. Writing the report is documenting the result of an assessment. The purpose of a report is to provide documentation necessary to support findings and concerns identified by the assessor(s). The report should clearly state the status of reviewed areas and act as the reference for future discussions regarding corrective action plans.

Each assessment report will be unique, depending on the scope and results of the assessment. An example of a typical assessment report is shown in DOE Standard DOE-STD-1070-94 and DOE Standard DOE-STD-3006-93 and includes the following sections:

- 1) Cover Page
 - 2) Summary
 - 3) Background
 - 4) Description of Assessment
 - 5) Results and Recommendations
 - 6) Conclusion
- i. Verification of corrective actions consists of the following elements: correction of reported items, correction of identical items, identification of error cause, and action to prevent recurrence. A tracking system is a useful tool to track the identification of an open item as well the completion status. Without tracking the status, a high probability exists that some necessary steps will not be taken because of the many actions involved.

Developing an Assessment Report

When developing an assessment report the writing process consists of three stages: a. Planning, b. Drafting, and c. Reviewing.

- a. Planning- The most important stage of the writing process. During this stage, critical decisions are made about the messages and how to develop and organize the messages. The end goal is to develop an outline that clearly and concisely conveys the message(s) to the organization. Such planning provides a road map for developing the written product.

Conduct of Assessments for Nuclear Explosives Safety

- b. Drafting- During the drafting stage, the assessor writes the report using the results of the planning stage. In writing the report, the deductive style should be used and each paragraph should have focus and flow.

In using the deductive style, a general statement or conclusion is stated first, and then supporting information is added. The supporting information should be sufficient to prove the point of the general statement or conclusion.

- c. Reviewing- Consists of examining the written product. This examination should confirm that the written message is the intended message and that it is presented clearly and concisely. Review techniques include: time between drafting and reviewing, use of a cold reader, reading aloud, and focusing on paragraphs and sentences.

Conflict Management

Conflict is defined as that condition which will exist when two or more independent parties interact. Sources of conflict are: a. Individual factors, b. Organizational issues, and c. Communication. The sources of conflict are briefly described below:

- a. Individual factors include: background, social style, perceptions, and feelings.
- b. Organizational issues include: scarcity of resources, ambiguity over regulation, competition, and exceptions.
- c. Communication conflicts can arise from problems with sender, media, and receiver.

Conflict management is defined as the process of identifying, directing, and controlling the collection of factors that result from and contribute to conflict.

Stage 1 of conflict management is defining the conflict. Stage 2 is negotiating an agreement. Stage 3 is summarizing and reviewing. Once the conflict has been identified and it is determined that a meeting is necessary, the following conflict management techniques can be applied:

- Pause and think before reacting
- Keep the meeting under control
- Listen to all parties

Conduct of Assessments for Nuclear Explosives Safety

- Maintain a give and take attitude
- Educate others tactfully
- Be willing to acknowledge when you are wrong

Assessing Contractor Activities

During the assessment of contractor activities there are certain criteria useful in determining the acceptance or noncompliance of an item or activity. The following criteria summarized from 10 CFR 830.120(c) and DOE Order 5700.6C, Quality Assurance, provide the basis for contractor assessments:

- **Programs-** Organizations shall develop a written plan that describes the organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing adequacy of work.
- **Personnel Training and Qualifications-** Personnel shall be trained and qualified to ensure they are capable of performing their assigned work. Training should emphasize correct performance of work, provide understanding of quality requirements, and stimulate professional development.
- **Quality Improvement-** The organization shall establish and implement processes to detect and prevent quality problems and to ensure quality improvement. Items and processes that do not meet established requirements shall be identified, controlled, and corrected. Correction shall include: identifying the cause of the problems and preventing reoccurrence. Item reliability, process implementation, and other quality-related information shall be reviewed and data analyzed to identify items and processes needing improvement.
- **Documents and Records-** Documents shall be prepared, reviewed, approved, issued, used, and revised to prescribed processes, specified requirements, or established designs.

Records should be maintained and provisions provided for retention, protection, preservation, traceability, accountability, and retrievability.

- **Work Processes-** Work should be performed to technical standards and administrative controls. Work shall be performed under controlled conditions using approved instructions, procedures, or other appropriate means.

Conduct of Assessments for Nuclear Explosives Safety

- Design- Process should use sound engineering/scientific principles and appropriate standards. Design work, including changes, shall be incorporated into applicable requirements and design bases.
- Procurement- The method of obtaining items or services that meet established requirements and performed as specified. Prospective suppliers shall be evaluated and selected on the basis of specific criteria.
- Inspection and Testing- The process by which an item is deemed acceptable or not acceptable based on established acceptance and performance criteria.
- Management Assessment- Management at all levels shall periodically assess the integrated quality assurance program and its performance. Problems that hinder the organization from achieving its objectives shall be identified and corrected.
- Independent Assessment- Planned and periodic independent assessments shall be conducted to measure item quality and process effectiveness and to promote improvement. The organization performing independent assessments shall have sufficient authority and freedom from the line organization to carry out its responsibilities. Persons conducting independent assessments shall be technically qualified and knowledgeable in the areas assessed.

Participating as an Assessor

To assess contractor activities and prepare necessary reports it is imperative that the assessor actually participate in an assessment of a contractor's performance. To participate in an assessment, the assessor should contact his/her Quality organization to make the necessary arrangements. The reasons for participating in an assessment of a contractor's performance are to learn the assessment process, demonstrate the capability of assessment performance, and enhance the quality of the item or process. The three activities pertinent to assessing a contractor's performance are described below.

Assessing a Contractor's Performance

To adequately assess a contractor's performance, it is important that the person doing the assessing understand the elements of conducting an assessment.

Overview of Conducting Assessments

There are nine essential elements of conducting an assessment. Prior to beginning an assessment, a review of the following conduct of assessment elements is warranted. Listed below are the conduct of assessment elements:

- Determining the Scope
- Preparing the Plan
- Conducting the Entrance Meeting
- Interview Process
- Evaluation Techniques
- Deficiency Identification
- Conducting the Exit Meeting
- Writing the Report
- Verification of Corrective Actions

Elements of an Assessment

- 1) Determining the Scope involves defining the boundaries for an evaluation. The following are factors to be considered when determining the assessment boundaries:
 - QA Systems- Refer to the 10 criteria of DOE Order 5700.6C, 10 CFR 830.120, or the QA Manual of the facility being assessed.
 - Organizational Entities- Management personnel that have the responsibilities within the evaluation topic.
 - Locations- Physical area where assessment items exist.
 - Programs and Activities- Types of programmatic and work processes.
 - Hierarchy of Procedures- The level of procedures that are used to determine performance during the assessment.

Conduct of Assessments for Nuclear Explosives Safety

- Calendar Time- The time allotted for an assessment. Time can affect the population to be assessed. Compliance and performance based assessments use some prior time up to the present.
- 2) Preparing the plan includes: scheduling the organization to be assessed, dates of the assessment, team member identification, purpose and scope of the assessment, arrangement for the entrance meeting, necessary escorts, and exit meeting.
 - 3) Conducting the entrance meeting involves the Team Leader introducing the participants, describing planned assessments, identifying points of contact, arranging for periodic briefings of the organizations being assessed, soliciting and answering questions, and arranging for the exit meeting.
 - 4) The interview process is a free exchange of information. It is during this time that a positive, cooperative climate is established. The types of questioning include: open, closed, probing, and leading/loaded. Open questions are used to obtain general information, closed questions are used to obtain specific information, probing questions are used to obtain clarifying or additional information. Leading and loaded questions are to be avoided.
 - 5) Evaluation techniques are essential because they provide the means to determine acceptability. The techniques include: a) Traceback, b) Tracethrough, c) Comparison, and d) Reinspect/Retest.
 - The Traceback method involves selecting samples from end results, tracing backwards through the activities that produced the results, evaluating each step of the activity, and continuing such an evaluation to the upper tier requirement.
 - The Tracethrough method begins with the evaluation starting with the commitment of the upper tier requirement, tracing through the control model/standard, and evaluating each step until arriving at an end result.
 - The Comparison method compares "from a requirement" to "the object of that requirement". It determines acceptability in terms of compliance with the requirement. Comparison always compares from the requirement to the object of the requirement. Because comparison determines acceptability, it is highly useful.

Conduct of Assessments for Nuclear Explosives Safety

- The Reinspect/Retest technique requires the evaluation team to reinspect/retest the product, compare results with those obtained by the initial inspection/test, and explore the differences that are beyond expected repeatability.
- 6) Deficiency identification describes the deficiency. A deficiency is a variance from a requirement. Deficiencies may be symptomatic, systematic, or inadvertent. Deficiencies that affect product quality, health, equipment reliability, and commitments to governmental agencies should be promptly reported to the contractor or DOE management.
 - 7) Conducting the exit interview is important because it verbally summarizes the assessment. The exit meeting should identify participants, discuss assessment results, deficiencies, items of concern, questions from the assessed organization, and subsequent schedule of events.
 - 8) Writing the report is documenting the result of an assessment. The purpose of a report is to provide documentation necessary to support findings and concerns identified by the assessor(s). The report should clearly state the status of reviewed areas and act as the reference for future discussions regarding corrective action plans.

Each assessment report will be unique, depending on the scope and results of the assessment. An example of a typical assessment report is shown in DOE Standard DOE-STD-1070-94 and DOE Standard DOE-STD-3006-93 and includes the following sections:

- Cover Page
 - Summary
 - Background
 - Description of Assessment
 - Results and Recommendations
 - Conclusion
- 9) Verification of corrective actions consists of the following elements: correction of reported items, correction of identical items, identification of error cause, and action to prevent recurrence. A tracking system is a useful tool to track the identification of an open item as well the completion status. Without tracking the status, a high probability exists that some necessary steps will not be taken because of the many actions involved.

Conduct of Assessments for Nuclear Explosives Safety

Four Step Investigative Approach

1) What actually occurred?

The evaluator interviews or reviews the performance records to determine what actually occurred.

2) What was structured to occur?

The evaluator determines if the activity is structured to allow what actually occurred and whether other events should have occurred.

3) What should have been structured to occur?

The evaluator determines whether the previously observed structure complies with the intended and required structures.

4) Determine the affect on quality.

The evaluator examines the affect on quality of the output of the process.

Field Observations

During an assessment, field observations are an important aspect that provide valuable information. Assessment team members should use established field observation techniques, including the following:

- 1) Taking detailed notes of observed activities, including objective evidence obtained or reviewed, and date and time of observed activities.
- 2) Logging the time that notes were taken to correlate contractor responses and personnel actions identified by other observers.
- 3) Include questions, items, and reference information in notes for later follow-up.
- 4) Compare notes with other observers to share information.
- 5) Provide informal status to contractor on a regular basis.

Reporting the Results to Management

Conduct of Assessments for Nuclear Explosives Safety

Reporting the results to management can be accomplished in several ways: 1) Daily Updates, 2) Exit Meeting, and 3) Assessment Report.

- 1) Daily Updates- This method is used to provide the following:
 - Daily interchange of information
 - Adjustment of schedules or assignments
 - Summary of items assessed that day and the results
 - Request of better support from organizations being assessed
 - Areas of concern/potential findings
- 2) Exit Meeting- The Exit Meeting serves to present assessment findings, ensure understanding of the findings, and clarify any misunderstandings. If the organization being assessed was kept informed during the assessment process by daily updates, the organization should not be surprised by this presentation. Presentation of assessment findings should be consistent with information being prepared for the assessment report. If possible, a draft assessment report should be presented.
- 3) Assessment Report- An effective report provides the contractor with a complete set of findings and recommendations. The report should be reviewed with contractor management for organization and accuracy prior to issuance.

Developing an Assessment Report

When developing an assessment report the writing process consist of three stages: 1) Planning, 2) Drafting, and 3) Reviewing.

- 1) Planning- The most important stage of the writing process. During this stage, critical decisions are made about the messages and how to develop and organize the messages. The end goal is to develop an outline that clearly and concisely conveys the message(s) to the organization. Such planning provides a road map for developing the written product.
- 2) Drafting- During the drafting stage, the assessor writes the report using the results of the planning stage. In writing the report, the deductive style should be used and each paragraph should have focus and flow.

Conduct of Assessments for Nuclear Explosives Safety

In using the deductive style, a general statement or conclusion is stated first, and then supporting information is added. The supporting information should be sufficient to prove the point of the general statement or conclusion.

- 3) **Reviewing-** Consists of examining the written product. This examination should confirm that the written message is the intended message and that it is presented clearly and concisely. Review techniques include: time between drafting and reviewing, use of a cold reader, reading aloud, and focusing on paragraphs and sentences.

4. Exercise Solutions

EXERCISE 4.6-A State the purpose of DOE Order 5610.10 Nuclear Explosive and Weapons Safety Program.

To establish the Department of Energy (DOE) policy, objectives, standards and criteria, authorities, and responsibilities for its Nuclear Explosive and Weapons Safety Program.

EXERCISE 4.6-B List the two (2) objectives of DOE Order 5610.10 Nuclear Explosive and Weapons Safety Program.

- 1) Assure that all nuclear explosive and nuclear weapon operations by DOE and DOE contractors are conducted safely
- 2) Discharge DOE's dual-agency role for the safety of nuclear weapons in DOD custody.

Conduct of Assessments for Nuclear Explosives Safety

EXERCISE 4.6-C Describe the process used to resolve safety issues associated with Nuclear Explosive and Weapons Safety Program (DOE 5610.10).

- a. The concept of operation is totally considered.
- b. Attendant risks are identified, analyzed, evaluated, and documented.
- c. Informed decisions are made at the appropriate management level to ensure that the degree of safety provided is adequate and consistent with overall program objectives.
- d. To this end, the DOE shall maintain a formal, comprehensive, and systematic nuclear explosive and weapons safety program.

EXERCISE 4.6- D What are the two levels that annual appraisals are conducted at?

- (1) Operations Offices shall appraise Area Offices and/or DOE contractors, and the DP-20 shall appraise Operations Offices.
- (2) The DP-20 appraisal of Operations Offices may require examination of Area Offices and DOE contractor activities.

EXERCISE 4.6-E What activities are on the agenda for the In-briefing?

- Subject matter of the appraisal (Appraisal Team).
- Follow-up actions on the last appraisal (Organization).
- Any newer outstanding nuclear explosive safety issue (Organization).
- Any major resource, operational, or organizational changes between the last appraisal and current appraisal (Organization).
- Any results of internal appraisals by the appraised organization identifying any deficiencies and corrective actions taken (Organization).

Conduct of Assessments for Nuclear Explosives Safety

- EXERCISE 4.6-F** What information should be discussed at the Out-Briefing and be included in the Draft Report?
- Preliminary findings and recommendations of the appraisal. These shall be drafted by the appraisal team at the conclusion of the appraisal and discussed.
 - Possible actions to correct any deficiencies or make improvements in the program.
 - Improvements and achievements noted since the last appraisal.
 - Any needed changes in policy or procedures.
 - Any disagreements or differences in facts between the appraisal team and appraised organization.
- EXERCISE 4.6-G** List six (6) of the factors to be considered and applied as appropriate for use in the Nuclear Explosives Safety Program appraisals.
- Organization and Administration.
 - Management Interest and Support.
 - Staffing.
 - Compliance with the Department's Nuclear Explosive and Weapons Safety Program.
 - Personnel Assurance Program including PAP records.
 - Training and Qualifying of Personnel including review of PAP training records.
 - Two-Person Concept of Operations.
 - Nuclear Explosive Safety Standards and General Nuclear Explosive Safety Rules.
 - Safety Studies and Surveys.
 - Permanent Marking Instructions and Nuclear Explosive-Like Assembly Requirements.
 - Control of Electrical Testers/Equipment.
 - Onsite and Offsite Transportation.
 - Risk Assessment Report, if appropriate.
 - Occurrence Reporting and follow-up action.
 - Appraisals, if appropriate.

Conduct of Assessments for Nuclear Explosives Safety

EXERCISE 4.6-H State the guidance associated with the time limits applicable to the appraisal report.

Appraised organization to provide comments concerning factuality and accuracy of the draft report	within 15 days after receipt of draft report
Appraising organization shall transmit the final report to the Manager of the appraised organization	within 20 days after receipt of draft report but no later than 35 days after appraisal outbrief
Appraised organization shall transmit in writing to the appraising organization a report of corrective actions implemented and corrective action plan and schedule	within 60 days of receipt of final appraisal report

EXERCISE 4.1 4.6-I State the three (3) types of assessments.

- Internal
- Self
- External (also known as Independent)

EXERCISE 4.1 4.6-J Which type of assessment provides the highest amount of objectivity? Why?

External (Independent) assessments offer more objectivity. These assessments are those conducted by someone other than the individual, group, or organization. The advantage of an independent assessment is that the assessor is not associated with the actual process or activity.

EXERCISE 4.1 4.6-K In addition to monitoring work performance and identifying abnormal performance and potential problems, what three other responsibilities does a person performing independent assessments have?

- Identify opportunities for improvement
- Report results to a level of management having the authority to effect corrective action

Conduct of Assessments for Nuclear Explosives Safety

- Verify satisfactory resolution to problems

EXERCISE 4.1 4.6-L Describe the "Performance based" assessment approach.

Performance Based assessments are merely a logical extension of the compliance plus effectiveness concept. Performance Based assessments provide additional focus toward client expectation, better practices, and process refinement. Performance Based relates to the outcome/result of an activity or process through direct observation and evaluation against defined requirements.